

ICDF Landfill Final Cover Hydrologic Model

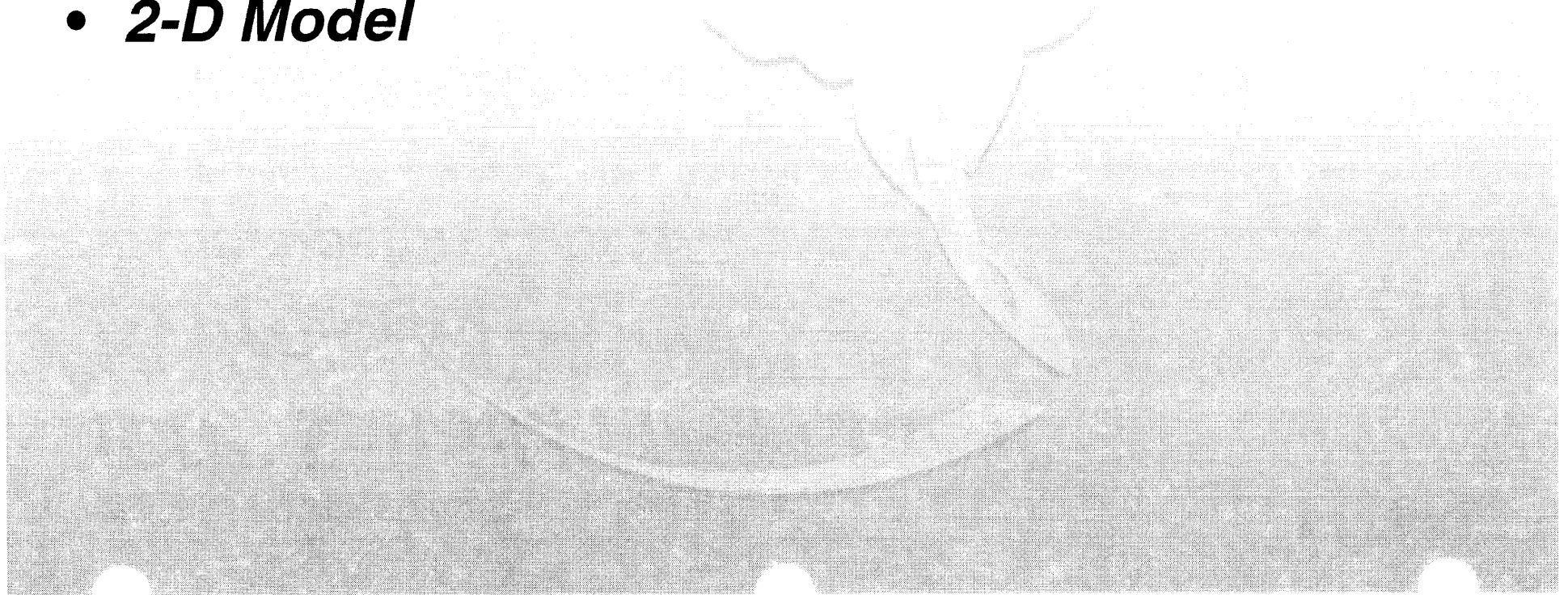
Discussion Topics

- ① *Review 30% Hydrologic Study*
- ② *Review 60% Hydrologic Study*
- ③ ***IDEQ Comments***
- ④ *Path Forward*

IDEQ Comments

Major Issues

- ***Flat vs Sloping***
- ***Lateral Drainage vs Percolation***
- ***2-D Model***



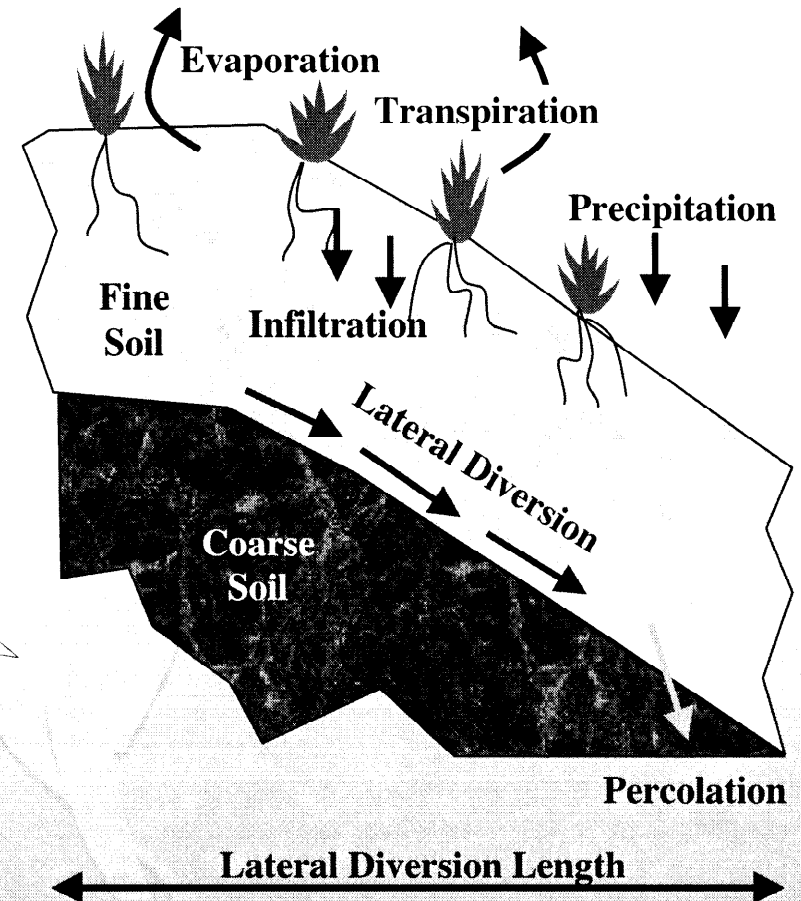
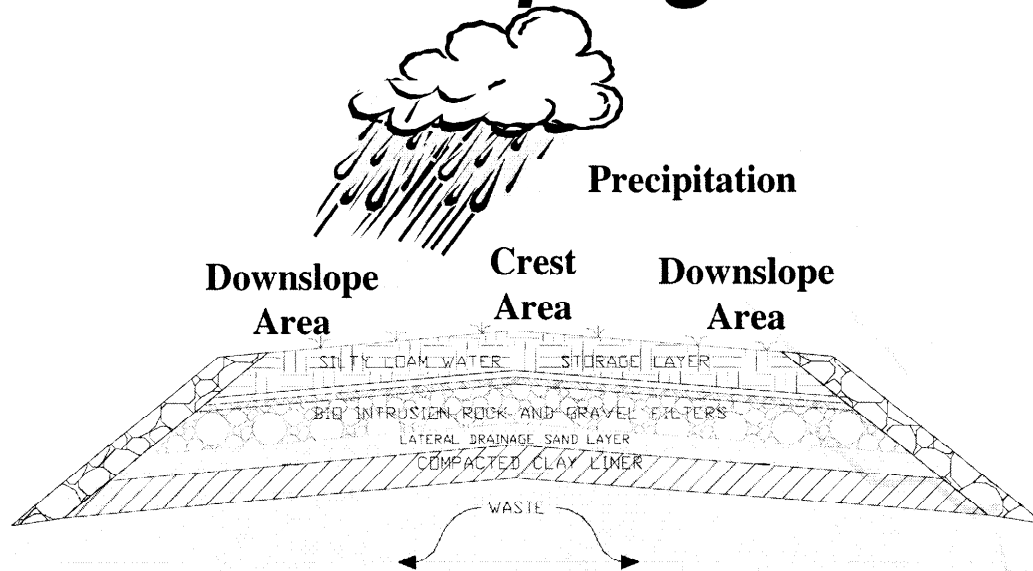
IDEQ Comments

Flat vs Sloping

“...will a sloping cover produce more infiltration than a flat cover?”



Flat vs Sloping



Main Issues

- **Surface water run-off stays on cover longer at downslope areas**
- **Lateral movement increases downslope moisture content at interface creating breakthrough**

Flat vs Sloping Surface Water Run-Off

	Base Case	Extreme Case
Average Annual Run-Off	1 mm	3 mm
Percent of Precipitation	0.6 %	1 %
Average Annual Breakthrough With Run-Off	0.41 mm	0.46 mm
Average Annual Breakthrough Without Run-Off	0.38 mm	0.48mm

- ***Amount of run-off is small, therefore contact time is short***
- ***Travel time is short (<30 minutes)***
- ***99% of precipitation infiltrates into cover based on current model***